**Exploration of the Climate Perspectives Website**

The Southeast Regional Climate Center (SERCC)

Using the Climate Perspectives website, <http://www.sercc.com/perspectives>, answer the following questions to determine how the recent weather and climate of the region compare with prior years.

1. **What are the most unusual aspects of the recent temperature and precipitation regime at Raleigh-Durham?**

*To answer this question, make sure you are on the “Local Station Perspective” tab and scroll down the page to view the Past Climatological Periods for Raleigh, NC. For each of the four temperature/precipitation measures below indicate the time period (i.e. row in the chart) that has the greatest departure from normal (i.e. the highest rank). Note: For precipitation, consider only time periods of a week and greater.*

Max. Temp Min. Temp Avg. Temp Total Precipitation

1. **How many of the warmest years over the 69-yr period of record at Raleigh-Durham have occurred in the last 10 years (2002-2012)?** *To answer this question, go to the row identified as the “Past Year” and click “view history”. The average mean temperatures can then be sorted from warmest to coldest by simply clicking on the down arrow (see 8th column). For the top 10 warmest years, simply count how many of them occurred between 2002 and 2012).*
2. **a. Is the unusual temperature pattern observed over the last year at Raleigh-Durham also found across North Carolina and the southeastern U.S.?** *To answer this question, click on the “Regional Map Perspective” link at the top of the page. On the far right of the map, for variable select “mean temperature”, for date select Sat 6/16/2012, for temperature select “past year”, and for station display select “percentile”. Once these selections are made, click the “show perspectives” button.*
3. **Do you see a spatial pattern in the temperature anomalies that relates to nature of the landscape** *(hint: compare temperatures around large urban areas with those in largely rural areas of the map.)*
4. **How many days over the last year has the daily high temperature equaled or exceeded 90 degrees F? How does this compare with the past (i.e. what is its rank)?** *To answer this question, click on the “Streaks and Thresholds” link at the top of the page. In “step 4”, select “high temperature” if it is not selected, and then click the button below entitled “Update Streaks and Thresholds Perspectives”. Examine the values provided in the table under the “past year” column and the >90 F row. In order to see how this value compares with the past, examine the rank value. You can click on this value to see exactly how it compares with prior years.*